

IN THE CLAIM:

1. **(Currently Amended)** Method for counteracting the occlusion effect of an electronic device delivering an audio signal to ~~the~~an ear, like a ~~hearing aid or an active ear protector, wherein~~ the electronic device comprises a transmission path with an external microphone or input line~~[],]~~ which receives a signal  $p_{ES}$  from the environment, and a signal processor and a receiver which receives a processed signal from the signal processor and delivers sound signals to the ear, whereby an ear piece is inserted into the ear canal and totally or partially blocks the canal whereby the sound conditions in ~~the~~a cavity between the ear piece and the tympanic membrane are directly or indirectly determined, and whenever conditions leading to occlusion problems are determined, the transmission characteristic of the transmission path to the receiver counteracts the occlusion effect, monitoring the sound conditions in the cavity by an additional microphone which is acoustically coupled to the cavity, using the signal from the additional microphone in a feed back loop to the receiver in order to attenuate the low frequency part of the sound in the cavity, and forming the feed back loop to the receiver in the analogue domain.

2. **(Currently Amended)** Method as claimed in claim 1, whereby the including monitoring conditions leading to occlusion are determined by monitoring the to determine activity of the user's own

voice, and when a user's own voice activity is detected, the reducing amplification through the signal processor in the frequency region below 1 kHz is reduced.

3. **(Cancel)**

4. **(Currently Amended)** Method as claimed in claim-3\_1, whereby the signal processor amplifies the including amplifying a low frequency part of the signal from the external microphone in the signal processor in order to compensate for the attenuation of the-a useful part of the signal from the external microphone or input line.

5. **(Currently Amended)** Method as claimed in claim-3\_1, whereby including activating the feed back loop from the additional microphone is activated by a user's own voice activity of the user.

6. **(Previously Presented)** Method as claimed in claim 1, whereby the sound entering the cavity from the tissue and causing the occlusion sound levels within the cavity is captured by a vibration pick-up, and where the vibration signal is filtered in a filter  $D'_a$  and combined with the signal which is captured by the external microphone or input line of the device.

7. **(Currently Amended)** Method as claimed in claim 6, whereby an inward pointing microphone monitors including monitoring the sound pressure in the cavity, and where this with an inward pointing microphone producing a signal, is compared comparing said signal with

the signal from the external microphone or input line, and ~~where~~ using the comparison ~~result is used to~~ control the shape of the filter  $D'_a$ .

8. **(Currently Amended)** Method as claimed in claim 1, whereby the detection of a user's own voice activity is carried out by the ~~use of~~ a vibration pick-up in contact with a body portion of the user.

9. (New) Method as claimed in claim 1, wherein the transmission path comprises a conversion from discrete time signals to analogue signals to allow the feed back loop to the receiver to be formed in the analogue domain.

10. (New) Method as claimed in claim 1, wherein stability considerations are taken into account through analysis of the appropriate Nyquist curve for the open loop case and subsequent gain and filtering adjustment.